

REMARKS

Entry of this response is requested, along with reconsideration and allowance of the revised application.

Claims 95, 99, 109-114 and 116-123, and 125-128 are pending. Claim 95 is the sole independent claim.

Claims 95, 99, and 116 are amended presently, and dependent claims 126-128 are added. Claims 115 and 124 have been cancelled, without prejudice or disclaimer.

Support for the revisions to claim 95 can be found throughout the specification. For example, see page 11, line 6 (“polymer molecules”), page 25, first paragraph (“capable of hydrogen abstraction reactions when exposed to photocrosslinking conditions”) and surrounding text. Applicants also note the inherent nature of reactive benzophenone groups and of polymers that comprise “a plurality” of molecules. Thus, amended claim 95 refers to “reacted benzophenone groups.” Page 25, in the first paragraph, describes reacted benzophenone groups, stating that benzophenone groups can participate in reactions including crosslinking reactions, UV curing reactions, and hydrogen abstraction reactions.

This amendment provides a structural description of the cross-linked polymer, as requested by the Examiner. Claim 95 also is amended for greater clarity. If the Examiner has any concern regarding support for any revision, she is requested to allow the undersigned a telephone interview to address the concern.

Support for the revision of claim 119 can be found, for example, at page 40, first paragraph. New 126 is based on prior claim 115. New claims 127 and 128 are based on claim 116, *inter alia*.

All amendments are believed to conform to Rule 116. For example, they place the claims in better form for appeal. Applicants respectfully request a telephone interview with the Examiner, should she believe otherwise.

Interview Summary

Applicants appreciate the Examiner’s participation in an interview conducted on February 9, 2006. The interview addressed rejected claim 95, and the amendments provided herein also were discussed favorably. The Examiner was heard to agree at least that the cited art does not teach the claims as revised, and that the salient issues were overcome, subject to final review.

Applicants submit herewith the three exhibit sheets employed at the interview.

Response to Rejection under 35 U.S.C § 102

The Examiner has rejected claims 94-124 as anticipated by Boschetti et al., US 2003/0218130. Applicants respectfully traverse, in view of the present amendments. This rejection and the present amendments were considered at the February 9th interview.

Boschetti did not anticipate for a variety of reasons, as discussed at the interview. First, Boschetti et al. did not show a composition comprising first polysaccharide polymers and second, different polysaccharide polymers comprising selective binding functionalities. Rather, Boschetti et al. showed first cross-linked polysaccharide molecules to which binding functionalities were attached before or after cross-linking. See Figure 3 of Boschetti et al., for instance.

Second, Boschetti did not teach or suggest photocrosslinked benzophenone groups. Boschetti et al. referred to “adding” a methoxy-benzophenone to initiate polymerization of monomers. See paragraph 120 of Boschetti et al. Under such conditions, the benzophenone group might bind only to a terminal moiety as part of the initiation process, but it would not engage in cross-linking polymers. By contrast, the present claims recite both that the benzophenone groups are attached to the first polymers and that they form cross-links with other polymers (that is, with other polymer molecules of the same type or different type). These are structural differences that rebut the anticipation argument.

In sum, the presently claimed compositions possess structural differences over the prior art compositions.

Response to Rejections under 35 U.S.C. § 103

Claim 125 was rejected over Boschetti in view of Hillenkamp, U.S. patent No. 5,118,937. Applicants respectfully traverse, again in view of the present amendments.

As discussed above, the Boschetti reference failed to teach several elements of the invention as claimed, including, for example, a composition comprising two different polysaccharides and photocrosslinking by attached benzophenone groups. Hillenkamp described a method of mass spectrometry but failed to disclose the elements missing from Boschetti et al.

This rejection is based on hindsight. No motivation is evidenced to have combined the references in the manner posited. Even were the references so combined, moreover, the claimed invention would not emerge, since Hillenkamp does not supply several elements that are missing from Boschetti et al. Accordingly, the cited combination of references does not render the invention obvious within the meaning of Section 103.

Finally, Applicant takes this opportunity to point out certain unobvious and useful features of this invention. The invention is produced by blending two different polymers – a polysaccharide comprising a benzophenone photoreactive group and a polysaccharide comprising a binding

functionality. By beginning with two polymers already formed, this combination provides flexibility in the choice of binding functionality and control over the final product formed. Applicants submit that a mass spectrometry probe having on its surface a blend of two different polysaccharides photocrosslinked together, one of which had benzophenone moieties and the other of which has binding functionalities, is both novel and unobvious.

Based on the foregoing, Applicants respectfully request the Examiner to withdraw all the pending rejections and to pass this application to issue.

CONCLUSION

The presently claimed compositions are structurally distinct over the prior art references and the distinctions are sufficiently important, representing a different approach to solve problems and provide advantages for probes for mass spectrometers, that obviousness is not an issue.

Again, Applicants appreciate the Examiners' taking the time during the personal interview to resolve these issues. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or any other provision, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date

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